

5 **HANDOFF MECHANISMS TO SUPPORT REAL-TIME DELAY-CRITICAL
SERVICES IN A NEXT GENERATION NETWORK**

Abstract

10 A next generation wireless data system and method for handoff from a node in
a network is presented. The system includes a core network (CN) and a source and a
target radio network subsystem (RNS). The interface between the RNSs is enhanced
to reduce unnecessary relay of messaging through the CN and thus will reduce
traversing delays as well as the resources utilized in message processing. Two
15 separate methods are proposed for handing off the data traffic to the target RNS at the
CN packet processing node. These methods are a multi-cast function that
concurrently sends data to the source RNS and the target RNS, and a suspend/resume
function which suspends the data flow towards the source RNS and resumes the flow
towards the target RNS.

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